Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Federal-State Joint Board on Universal Service	)	CC Docket No. 96-45
	)	

To: The Commission

PUERTO RICO TELEPHONE COMPANY

RESPONSE TO QUESTIONS IN UNIVERSAL SERVICE PROCEEDING

Joe D. Edge
Richard J. Arsenault
Tina M. Pidgeon

DRINKER BIDDLE & REATH
901 Fifteenth Street, N.W.
Washington, D.C. 20005
(202) 842-8800

August 2, 1996

Counsel for Puerto Rico Telephone Company

TABLE OF CONTENTS

Page

Page

SUMMARY

In its responses to questions posed by the Commission in this proceeding, the Puerto Rico Telephone Company urges the Commission to implement the universal service mandates of new Section 251 of the Communications Act by targeting assistance:

- to areas of low telephone penetration;
- to low-income subscribers; and
- to promote network expansion to low-income subscribers.

The correlation between telephone service penetration and subscriber income levels underscores that the Commission should target assistance to low-income individuals to increase subscribership. Specifically, eligible telecommunications carriers ("ETCs") that serve individuals below the poverty line should receive universal service funds which are passed through to such consumers as a reduction in basic monthly service rates. Such a mechanism will enable those most in need of affordable rates to acquire and retain telephone service.

Second, the Commission should target a portion of universal service assistance to ETCs providing first residential local exchange service to new low income subscribers. Such assistance will encourage ETCs that operate in economically disadvantaged areas to expand their networks into unserved and underserved areas, by helping to defray the high costs associated with such expansion.

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Federal-State Joint Board	)	CC Docket No. 96-45
on Universal Service	)	

To: The Commission

RESPONSE OF PUERTO RICO TELEPHONE COMPANY

Puerto Rico Telephone Company ("PRTC"), by its attorneys, hereby submits its responses to questions posed by the Commission in the captioned proceeding.[1]

I. DEFINITIONS ISSUES

1. Is it appropriate to assume that current rates for services included within the definition of universal service are affordable, despite variations among companies and service areas?

Affordability levels for basic telephone service are likely to vary according to demographic characteristics of the area served. These differences may be reflected across companies, as well as service areas. The subscribership level in a particular area provides a useful indication of whether the current rate is affordable, and thus, service penetration rates provide a neutral and readily available benchmark for presumptive affordability. In most areas of the United States, where service penetration is nearing ninety-five percent,[2] rates

---

[1] FCC Public Notice, CC Docket No. 96-45, DA 96-1078, (released July 3, 1996).

[2] See 1996 Monitoring Report, CC Docket No. 80-286 at 17, Table 1.2.

for services appear to be largely affordable, given that only the smallest percentage of households do not have telephone service. In stark contrast, however, the service penetration rate in Puerto Rico is near seventy-two percent. The fact that a quarter of the households in Puerto Rico lack basic telephone service is a strong indication that basic telephone service is not affordable. Therefore, it is not appropriate to assume that the current rates, at least in Puerto Rico, are affordable island-wide, despite the fact that PRTC's rates are near the national average and the company has held rates for local service constant for over a decade

2. To what extent should non-rate factors, such as subscribership level, telephone expenditures as a percentage of income, cost of living, or local calling area size be considered in determining the affordability and reasonable comparability of rates?

Subscribership, income, and poverty levels are non-rate factors that should be used to determine whether service to a particular area is affordable. The national household telephone subscribership level should be used as a benchmark to identify areas in which carriers providing local service may require universal service funding to do so at an affordable level. Carriers serving an area where the subscribership level falls significantly below this benchmark should receive universal service support based upon their efforts and success in providing local service to low-income households and new low-income subscribers. See response to Question 42, infra (describing support for network expansion to low-income subscribers).

Income and poverty levels also should be used to assess the relative affordability of basic phone service. The prevailing local rate in a given area may correspond with some national average; however, when adjusted according to prevailing income level, the correlation will not be maintained. For example, according to the 1990 census, the United

States per capita income is 3.45 times greater than in Puerto Rico ($14,420 versus $4,177). Therefore, an increase in local rates on the average will impact a household in Puerto Rico three and one-half times greater than a household in the mainland United States. Similarly, national penetration rates range from 76.6% for households with an annual income below $5,000 to 99% for households with incomes exceeding $50,000.[3] This correlation demonstrates the direct relationship between income levels and telephone service penetration.

A similar correlation between affordability and poverty levels is equally evident. According to the 1990 census 55.3 percent of families in Puerto Rico were living below the poverty line in 1989,[4] compared with 10 percent of all families nationwide.[5] Telephone service penetration reflects a corresponding disparity between the mainland — 93.1 percent in 1989, and Puerto Rico — 62.1 percent in the same year.[6] Thus, poverty is a predictive indicator of low telephone subscribership, which in turn indicates the lack of affordable basic services. Universal service support should be made available particularly to enable selected carriers to provide service to those for whom basic service at current rates is unaffordable.

---

[3] Telephone Subscribership in the United States, FCC CCB Industry Analysis Division at 24 (Dec. 1995).

[4] 1990 Census of Population and Housing, Summary Social, Economic, and Housing Characteristics, PUERTO RICO, 1990 CPH-5-53 (1993) at 191.

[5] 1990 Census Summary of Social, Economic, and Housing Characteristics, UNITED STATES, 1990 CPH-5-1 (1992) at 228.

[6] 1995 Monitoring Report at 24.

3. When making the "affordability" determination required by Section 254(i) of the Act, what are the advantages and disadvantages of using a specific national benchmark rate for core services in a proxy model?

The greatest disadvantage to using a specific national benchmark rate in a proxy model is that the selected benchmark may be wrong. The risk is either that support will be too low and result in a decrease in subscribership levels, or that universal service efforts are over-funded and the price for other services will increase to cover carrier contributions. The most obvious advantage to the use of a national benchmark rate is its simplicity. If the Joint Board opts for administrative simplicity by adopting a national benchmark rate, then there also must be adjustments for local conditions to ensure that statutory universal service goals are met.

Subscribership, income, and poverty levels may justify a need for additional funding to make service affordable in Puerto Rico, even though support may not be required in another area served by a carrier with a higher subscriber rate and better economic conditions. Therefore, a benchmark rate may be used for assessing universal service requirements, but given the repercussions associated with the setting of an erroneous benchmark, it should be subject to adjustment for local conditions.

4. What are the effects on competition if a carrier is denied universal service support because it is technically infeasible for that carrier to provide one or more of the core services?

To date, the Commission has proposed a limited number of elements to be included in the definition of core services. Nearly all parties commenting in this proceeding have approved this proposed group of core services: (1) voice grade access to the public switched telephone network capable of originating and terminating any type of call, (2) touch-tone

service, (3) single-party service, (4) access to emergency services, and (5) access to operator services and operator information services. The Commission has inquired as to the effects on competition if a carrier is denied universal service support because it is "technically infeasible" for that carrier to provide one or more of the core services. It is unclear why any of these core services would be technically infeasible to provide, unless that term encompasses a failure by a carrier to acquire the capability to provide these core services on its network. This is particularly true because the carrier may provide universal service through resale. In any event a carrier should be required to provide the designated core services to be eligible to receive universal service funds.

5. A number of commenters proposed various services to be included on the list of supported services, including access to directory assistance, emergency assistance, and advanced services. Although the delivery of these services may require a local loop, do loop costs accurately represent the actual cost of providing core services? To the extent that loop costs do not fully represent the costs associated with including a service in the definition of core services identify and quantify other costs to be considered.

PRTC has advocated three additions to the core services already proposed by the Commission. First, listing in the white pages directory should be a core service. Second, all residential subscribers should be able to contact their local exchange carrier free of charge. Finally, PRTC has proposed that free optional toll blocking service be available as a core universal service to those subscribers who are below the poverty line. Costs incurred for providing any of these services should be factored in when determining the universal service support, even if they are not fully represented by the loop costs. For example, white pages listing involves charges wholly unrelated to the local loop, but if this is a core service, then the cost may be eligible for universal service support. Any universal service support

should apply to the costs of all designated core services, rather than solely to costs that are attributable to the local loop. The carrier incurs these costs whether the service entails use of the loop or not.

II. SCHOOLS, LIBRARIES, HEALTH CARE PROVIDERS

10. Should the resale prohibition in Section 254(h)(3) be construed to prohibit only the resale of services to the public for profit, and should it be construed so as to permit end user cost based fees for services? Would construction in this manner facilitate community networks and/or aggregation of purchasing power?

Subsidized services that are deemed by the Joint Board as appropriately offered to schools, libraries, and health care providers should not then be offered for resale by these entities. Congress provided specific guidance in the Act that such services should be made available to health care providers for rural areas (§ 254(h)(1)(A)) and to elementary schools, secondary schools, and libraries (§ 254(h)(1)(B)). To the extent that the Joint Board determines that certain services be made available at a discount rate, the beneficiaries should be strictly construed according to the plain language of the Act. Community networks and other aggregations of users are not included within the specific categories — rural health care providers, elementary and secondary schools, and libraries — that have been entities designated to receive discounted service.

12. Should discounts be directed to the states in the form of block grants?

PRTC opposes the distribution of discounts to the state commissions in the form of block grants, to the extent that such a mechanism will insert an administrative layer for monetary distribution in addition to a national administrator. This opposition is based on the assumption that "discounts" describes the monetary support available to carriers who provide discounted service to the designated entities. Distribution by block grant of these subsidies

simply adds an administrative layer to the universal service distribution mechanism. The goal of this proceeding is to improve upon the universal service support system. Fewer administrative complications will make that goal easier to attain.

16. What should be the base service prices to which discounts for schools and libraries are applied: (a) total service long-run incremental cost; (b) short-run incremental costs; (c) best commercially-available rate; (d) tariffed rate; (e) rate established through a competitively-bid contract in which schools and libraries participate; (f) lowest of some group of the above; or (g) some other benchmark? How could the best commercially available rate be ascertained, in light of the fact that many such rates may be established pursuant to confidential contractual arrangements?

Discounts for schools and libraries should be determined in relation to the tariffed rate. By using the rates set for commercially available service, the support paid to the carrier will best reflect the revenues foregone by the carriers in providing the discounted service.

III. HIGH COST FUND

A. General Questions

26. If the existing high-cost support mechanism remains in place (on either a permanent or temporary basis), what modifications, if any, are required to comply with the Telecommunications Act of 1996?

The Act will require certain modifications of the existing high-cost support mechanism. In the near term, provisions must be made for the receipt of funds by all carriers that are designated as eligible to receive subsidies, pursuant to Section 214(e)(2), and a mechanism must be developed to include support for the discounts provided to certain entities. Over time, the Commission and Joint Board are required to reassess the services to be supported by a universal support mechanism (§ 254(c)(1)) and the Commission as well as the States must carry out a general directive to "ensure that universal service is available at

rates that are just, reasonable and affordable" (§ 254(i)). Fulfillment of these duties may entail further modifications to the high-cost support mechanism.

27. If the high-cost support system is kept in place for rural areas, how should it be modified to target the fund better and consistently with the Telecommunications Act of 1996?

The concept of affordability is required by statute to be incorporated into all facets of the high-cost support mechanism. The high-cost support system must be kept in place not only for rural areas, but also for any areas where service is not affordable as is indicated by service penetration rates that fall significantly below the national average. This definition will target the fund to areas in which service is not affordable, because the low penetration rate will indicate that the cost of basic service exceeds the affordable level for a significant number of people in the community. Therefore, recognition of service penetration rates in providing high-cost support for rural and non-rural areas is consistent with the Act's requirement that service be affordable.

28. What are the potential advantages and disadvantages of basing the payments to competitive carriers on the book costs of the incumbent local exchange carrier operating in the same service area?

Today, ILECs operate the networks that offer all of the core services. It follows therefore, that the payments to competitive carriers should be capped at the book costs of the incumbent local exchange carrier in the area. If the payments were not capped at ILEC costs, then the fund might provide unnecessary support for any higher costs of a competitive carrier. Using the ILEC book costs as a cap can prevent this result.

29. Should price cap companies be eligible for high-cost support, and if not, how would the exclusion of price cap carriers be consistent with the provisions of section 214(e) of the Communications Act? In the alternative, should high-cost support be structured differently for price cap carriers than for other carriers?

The provision of Act relating to universal service do not distinguish between price cap carriers and other carriers. A carrier may be designated by a State Commission as eligible to receive universal service funding if it offers service in the entire area for which its designation is received and it advertises the availability of its basic services using the media. Any carrier may be an eligible carrier as long as these criteria are met. The Act does not appear to support a distinction based upon status as a price cap carrier.

31. If a bifurcated plan that would allow the use of book costs (instead of proxy costs) were used for rural companies, how should rural companies be defined?

As stated in response to Question 27, supra, high cost support should be available to ensure that service is affordable in rural and non-rural areas.

32. If such a bifurcated approach is used, should those carriers initially allowed to use book costs eventually transition to a proxy system or a system of competitive bidding? If these companies are transitioned from book costs, how long should the transition be? What would be the basis for high-cost assistance to competitors under a bifurcated approach, both initially and during a transition period?

The primary goal of revisions to the current high-cost system is to make sure that support is provided in an efficient manner and at a level that ensures the availability of universal service. If changes imposed pursuant to this proceeding upset the universal service support that helps keep local rates affordable for those who otherwise could not subscribe to telephone service, then the Commission has failed its universal service mission under the Communications Act. Therefore, any bifurcated system, as well as any proposed transitions either from or to such a system, must be thoroughly tested in light of this objective prior to

implementation. As PRTC has suggested, the factoring into consideration of penetration rates — whether in a bifurcated system or a full proxy system — will help insure that the fund will target aid to the neediest areas and that the requirement for affordability is being met.

33. If a proxy model is used, should carriers serving areas with subscription below a certain level continue to receive assistance at levels currently produced under the HCF and DEM weighting subsidies?

The use of a proxy model should not result in the decrease of funding for areas with low penetration rates. Any such result would be directly contrary to the intent of the new Act. Puerto Rico's 72 percent telephone penetration rate is 22 percentage points below the national average. Reduction or withdrawal of universal service support from carriers in Puerto Rico could reverse the tremendous gains in subscribership that have been made over the past twenty-five years. Moreover, changes to the system that cause a regression in service penetration rates would be flatly inconsistent with Section 254 and the fundamental purpose of the Communications Act to "make available, so far as possible, to all the people of the United States without discrimination on the basis of race, color, religion, national origin, or sex a rapid, efficient, Nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges . . . ." 47 U.S.C. § 151.

B. Proxy Models

It would not be responsible to use a proxy model that has not been thoroughly tested for distribution of high cost assistance. Given the limited time for Commission action in this proceeding and the complexity of the various models, the Commission should continue for the present to distribute assistance through a system based on actual cost.

In the near term, the Commission could begin to use proxy models for monitoring LEC costs to ascertain whether those costs are significantly above or below model-projected costs. If there is a material variation, then the Commission could examine whether the model is faulty (and thus requires fine tuning) or whether the LEC's costs are unusually high.

In the long run after it is thoroughly tested, a proxy model refined in light of Commission experience might become a valuable aid in the distribution of high cost assistance. A model must have the capacity to account for the circumstances faced by individual carriers that contribute to the cost of providing service. If the Commission adopts a proxy model, it must account for variations in subscriber income levels as well as telephone service penetration rates. Overall any mechanism adopted must ensure that the Act's universal service goals are achieved.

As PRTC explains in response to Question 61 below, the Commission can further its universal service mandates by targeting universal service assistance to subscribers below the poverty line. Each eligible subscriber would receive universal service assistance as a credit on their monthly service bill. A residual portion of the credit would be retained by the carrier as an incentive to serve low income subscribers and to offset the higher costs associated with serving the rural areas in which many low-income subscribers reside.

34. What, it any, programs (in addition to those aimed at high-cost areas) are needed to ensure that insular areas have affordable telecommunications service?

With respect to insular areas, it is vital that the Commission's universal service distribution mechanism promote service extension to low-income subscribers. LECs that provide local service to subscribers below the poverty line should receive assistance to help

defray the costs associated with extending service to unserved and underserved areas. See response to Question 42, infra.

40. If a proxy model is used, what, if any, measures are necessary to assure that urban rates and rates in rural, insular, and high-cost areas are reasonably comparable, as required in Section 254(b)(3) of the 1996 Act?

The Commission must bear in mind that service affordability is a relative concept. The Commission can only ensure that rates are reasonably comparable by accounting for the affordability of service in light of subscriber income levels. A rate of $15 for the core universal service package may be easily affordable for most residents of Connecticut which had a 1989 per capita income level of $20,089, and where 5% of all families lived below the poverty line. 1990 Census of Population and Housing, Summary Social, Economic, and Housing Characteristics, UNITED STATES, 1990 CPH-5-1 (1992) at 228. That same rate, however, may constitute a significant expenditure for most residents of the Aceitunas barrio of Puerto Rico which had a 1989 per capita income level of $2,409, 1990 Census of Population and Housing, Summary Social, Economic, and Housing Characteristics, PUERTO RICO, 1990 CPH-5-53 (1992) at 201, and where 73.8% of all families lived below the poverty line. 1990 Census of Population and Housing, Social and Economic Characteristics, PUERTO RICO, 1990 CP-2-53 (1993) at 819.

According to the 1990 census, U.S. per capita income (1989 dollars) is 3.45 times greater than in Puerto Rico ($14,420 versus $4,177). This 3.45 income differential illustrates two important points that the Commission must consider in determining whether rates are affordable:

(1) per capita income has a definite and substantial relationship to the affordability of basic telephone service; and

(2) any increase in local rates, resulting from reduced universal service assistance for example, in areas of low per capita income will have a far greater impact than in areas of moderate or high per capita income.

Affordability in the context of universal service must be considered in light of a comparison between LEC costs and the income of the residents of the telephone service area. By targeting universal service support to LECs providing service in economically disadvantaged areas, the Commission will further the mandates of Section 254 and telephone service penetration should increase where gains in penetration are needed most.

41. How should support be calculated for those areas (e.g., insular areas and Alaska) that are not included under the proxy model?

For areas, such as Puerto Rico, that do not lend themselves to a one-size-fits-all proxy model, the Commission should use actual costs as the basis for distributing assistance. It is difficult to fathom how a proxy model accurately could account for many of the variables that contribute to the high cost of providing service in Puerto Rico. Among the factors contributing to loop cost in Puerto Rico are:

(1) a number of households that do not take service are passed by PRTC facilities (penetration is below 50% in some exchange areas); thus, PRTC generally cannot take full advantage of economies of scale associated with the higher penetration rates of similar size LECs;

(2) the topography of Puerto Rico is unusually rugged (a mountain chain runs nearly the entire length of the interior of the island, with peaks ranging from 1500 to greater than 3500 feet);

(3) the climate in Puerto Rico is especially wet and humid;

(4) the transportation cost for goods delivered to Puerto Rico generally is higher than for goods delivered to the U.S. mainland because (a) Puerto Rico is located in the Caribbean (1,000 air miles from Miami), and (b) U.S. law requires that goods shipped between the U.S. and Puerto Rico be carried only on U.S. flag ships which generally cost more than non-U.S. flag ships; and

(5) certain goods imported to Puerto Rico, including most telephone equipment, are subject to a 6.6% excise tax placed on the importation of goods.

The existence of such anomalous variables weighs heavily against the use of a proxy model for areas such as Puerto Rico.

42. Will support calculated using a proxy model provide sufficient incentive to support infrastructure development and maintain quality service?

Proxy models will not necessarily spur efficient infrastructure development. Where a model overestimates costs and thus would result in an assistance windfall, the incentive to develop infrastructure will be greatest. On the other hand, if a model underestimates costs, and thus would result in an assistance shortfall, it would discourage infrastructure investment. Unless a model targets areas of low service penetration, it will fail to promote investment where it is needed most.

A sound approach to encouraging infrastructure investment that will further universal service goals is to motivate carriers to provide first local service to impoverished areas of low service penetration. For example, the Commission could stimulate network expansion through a universal service incentive payment to any eligible telecommunications carrier that provides first, residential local exchange service to a low-income subscriber. The payment could be set at a figure that reflects the difference between the cost of a new loop and embedded loop costs, for example $200 per new first, residential line. The payment could be provided annually for so long as the subscriber is below the poverty line.

The incremental cost of network expansion to reach new subscribers in areas of low penetration is much greater than the cost of adding subscribers in areas with higher penetration rates. In 1993 for example, the national annual incremental cost per additional

loop was $411.58,[7] while the annual embedded cost per loop was $242.95, a difference of $168.63. Thus, on average, the cost for additional local loops is 69.4% higher than the cost of existing local loops.

The proposed network expansion support payment has several important advantages. First, this mechanism would encourage eligible telecommunications carriers to seek out and serve currently unserved low income subscribers in unserved and underserved areas, thus helping fulfill the statutory principle that subscribers "in all regions of the Nation, including . . . those in rural, insular and high cost areas, should have access to telecommunications and information services . . " 47 U.S.C. § 254(b)(3). Second, the mechanism would be competitively neutral since any eligible telecommunications carrier that provides first local service to a new residential subscriber below the poverty line would receive such payments. Third, the mechanism would not require the universal service administrator to rely on carrier provided cost data. Finally, the network extension incentive comports "with the conferees'

---

[7] This number is derived by finding the estimated annual increase in revenue requirement per additional local loop. See 1995 Monitoring Report, Tables 3.5 at 84 (Unseparated NTS Revenue Requirement) and Table 3.6 at 85 (Number of Loops).

	Year-end 1992	Year-end 1993	Increase (1993-1992)
1. Unseparated NTS Revenue Requirement	$ 34,069,278,000	$ 36,002,857,000	$ 1,933,579,000
2. Number of Loops	143,492,443	148,190,420	4,697,977
3. Cost per Loop (1/2)	$ 237.43	$ 242.95	$ 411.58

The estimated annual cost per incremental loop installed during 1993 is the quotient of the annual increase in Unseparated NTS Revenue Requirement (from 1992 to 1993) divided by the annual increase in Number of Loops (from 1992-1993).

intent that all universal service support should be clearly identified . . . ." H.R. Rep. No. 458, 104th Cong., 2d Sess. at 131 (1996) ("Joint Explanatory Statement").

45. Is it appropriate for a proxy model adopted by the Commission in this proceeding to be subject to proprietary restrictions, or must such a model be a public document?

Under no circumstances should any element of a proxy model be proprietary. Thorough testing requires that a model be openly available.

46. Should a proxy model be adopted if it is based on proprietary data that may not be available for public review?

The primary basis for selecting a proxy model should be whether it can accurately predict the need for support in light of the myriad situations faced by individual carriers. In general the model and its inputs should be publicly available, If a carrier believes that a proxy model data input requires confidential treatment, the Commission has established procedures for the treatment of such data. See 47 C.F.R. § 0.459.

C. Competitive Bidding

49. How would high-cost payments be determined under a system of competitive bidding in areas with no competition?

Competitive bidding for assistance appears to be contrary to the universal service mandates of the 1996 Act because it presupposes that only one carrier could obtain assistance for a given area. State commissions must designate a carrier as an "eligible telecommunications carrier" ETC) in order for that carrier to receive high cost assistance. 47 U.S.C. § 214(e)(2). The Conference Committee made clear that "[u]pon designation, a carrier is eligible for any specific support provided under new section 254 for the provision of universal service in the area for which that carrier is designated." Joint Explanatory Statement at 141. Since more than one carrier may be designated as an ETC for a given

area, 47 U.S.C. § 214(e)(2), and since each ETC would be eligible to receive universal service support, the proposal to competitively bid for assistance, and thus limit support to one carrier, would upend Congress' explicit directive.

D. Benchmark Cost Model (BCM)

57. Should the BCM be modified to include non-wireline services? If wireless technology proves less costly than wireline facilities, should projected costs be capped at the level predicted for use of wireless technology?

Projected costs should be capped at the level predicted for use of wireline technology. LECs have invested billions of dollars to develop a wireline infrastructure to provide universal service. If universal service assistance is capped at a theoretical (assumed to be lower) wireless cost of service, while service is in fact provided using wireline facilities, rates in such areas could become unaffordable and the Commission will have failed to carry out its universal service responsibility.

Nevertheless, a proxy model should have the capacity to account for the provision of wireless local service. If wireless service proves less expensive then wireline service, a carrier providing universal wireless service would require less assistance.

61. Should the support calculated using the Benchmark Cost Model also reflect subscriber income levels, as suggested by the Puerto Rico Telephone Company in its comments?

Any proxy model adopted by the Commission must account for varying subscriber income levels if the Commission is to fulfill the 1996 Act's directive to "ensure that universal service is available at rates that are just, reasonable, and affordable." 47 U.S.C § 254(i) (emphasis added). A proxy model should address telephone service affordability through the use of per capita income differentials. Significantly, information concerning

subscriber income levels is readily available from the Bureau of the Census and could be incorporated easily into the BCPM or other proxy model.

It is beyond question that there is a "strong relationship between income and [residential telephone service] penetration."[8] "Poverty, or low income, is a primary predictor of nonsubscribership."[9] U.S. penetration rates range from 76.6% for households with annual income below $5,000 to 99% for households with incomes exceeding $50,000.[10] Thus, even if telephone service is technically available to potential subscribers who are below the poverty line, it is not practically available if the rate charged for the service is beyond their means.

The Conference Committee exhibited a special concern for less affluent consumers by specifically adding "'low-income consumers' to the list of consumers to whom access to telecommunications and information services should be provided."[11] In determining the affordability of service, cost is only one factor; the other key factor, as the Commission's studies show, is the level of subscribers' income.

According to the 1990 census, 55.3% of families in Puerto Rico were living below the poverty line in 1989,[12] compared with 10% of all families nationwide.[13] Thus, the

---

[8] 1995 Monitoring Report at 14.

[9] Preparation for Addressing Universal Service Issues: A Review of Current Interstate Support Mechanisms, Common Carrier Bureau (1996) at 16.

[10] Telephone Subscribership in the United States. FCC CCB Industry Analysis Division at 24 (Dec. 1995).

[11] Joint Explanatory Statement at 131.

[12] 1990 Census of Population and Housing, Summary Social, Economic, and Housing Characteristics, PUERTO RICO, 1990 CPH-5-53 (1993) at 191.

proportion of families below the poverty level in Puerto Rico is approximately five and one-half times that of the United States. Telephone service penetration in 1989 was 93.1% nationwide, but only 62.1% in Puerto Rico.[14] Given the difference in percentage of families below the poverty line, the penetration disparity is not surprising.

Commenters agree that the Commission should target assistance to subscribers least able to afford service.[15] The Commission could "ensure that consumers 'in all regions of the nation' and at all income levels, including low-income consumers, enjoy affordable access to the range of services available to urban consumers generally," NPRM ¶ 6, by targeting universal service assistance to subscribers below the poverty line as follows:

- For each eligible subscriber, an eligible telecommunications carrier (ETC) would receive a universal service payment set at $8 per month, for example.
- The ETC would pass through $6 to eligible subscribers as a credit on their monthly bill. The pass through would be available for one residential telephone line per qualifying household.

---

[13](...continued)

[13] 1990 Census Summary of Social, Economic, and Housing Characteristics, UNITED STATES, 1990 CPH-5-1 (1992) at 228.

[14] 1995 Monitoring Report at 24.

[15] See, e.g., American Association of Retired Persons, Consumer Federation of America, and Consumers Union at 21 ("low-income households are the households most likely to drop off the network as a result of rising prices"); Ad Hoc Telecommunications Committee at 20 ("household income is a major factor of subscribership, and the need, if any, for universal service support"); California Department of Consumer Affairs at 13 ("the universal service subsidy should be targeted on consumers who would not have access to the networks without the subsidy"); Frontier Corporation at 5 ("the Joint Board should recommend that universal service support be carefully targeted to needy users"); Information Industry Association at 5 ("universal service should be targeted to those parts of the nation that are in greatest need"); NCTA at 14 ("anyone living below the poverty level"); New Jersey Department of the Treasury at 16 (noting that "poverty per se is a major barrier to participation" in the telecommunications market); TCI at 11 ("subsidies should be carefully targeted to those [consumers] in need of demonstrable support").

- The ETC would retain $2 per low-income subscriber (1) as an incentive to maximize the number of low-income subscribers serviced and (2) to offset the higher costs associated with serving the rural areas in which many low-income subscribers reside.

Assuming a monthly rate of $15 for the core universal service group, using the figures as explained above, the basic service rate for below poverty line subscribers would be $9. A 40% decrease in the cost of basic service surely would increase subscribership among low-income consumers as well as mitigate network drop off.

The weighted average rate for PRTC's basic, unlimited local residential service (exclusive of the subscriber line charge, of which PRTC absorbs $.60, and the touch-tone charge) is $14.50. Thus, in Puerto Rico consumers eligible for the universal service assistance would have a weighted average service rate of $8.50. A 41.4% drop in basic service rates in Puerto Rico undoubtedly would foster far greater telephone service penetration among Puerto Rico's less affluent citizens.

The methodology proposed has many important advantages. First and foremost, it targets funding to subscribers who are most in need of assistance and thus satisfies the statutory imperative that any "carrier that receives such support shall use that support only for the provision, maintenance, and upgrading of facilities and services for which the support is intended." § 254(e).

Second, it is competitively neutral since any ETC would receive funds for pass through to eligible low-income subscribers for whom it provides service. Eligibility would not be limited by "class" restrictions, for example, according to the underlying technology used to offer service (CMRS or wireline), the area of service (rural or urban), or classification of the service provider (incumbent LEC or new entrant).

Third, it would not require reliance on speculative, unproven cost models that will lead to an unpredictable distribution of support not necessarily targeted to areas of greatest need. Instead, pass throughs could be authorized according to eligibility for federal aid programs. The universal service administrator, therefore, could rely on independently collected data instead of carrier-provided cost data.

With the appropriate mechanisms — like limited access to computer records of social service agencies for eligibility confirmation — this program could be administered with minimal intrusion upon or inconvenience to subscribers. Federal or state assistance records could be used to identify eligible recipients, and the cost-savings would then be passed through automatically by the LEC.[16] Procedures currently used to qualify recipients for assistance under the Lifeline or Link-up program are another possible means for determining eligibility.

As demonstrated above, accounting for subscriber income differentials will ensure that assistance is targeted to those most in need.

---

[16] See Citizens for a Sound Economy Foundation at 7 (proposing that low-income recipients be identified according to food stamp eligibility or status of being below the poverty line); Florida Public Service Commission at 17 (proposing that low-income recipients be identified according to receipt of Earned Income Credit); LDDS Worldcom at 13 (proposing that low-income recipients be identified according to "means-testing"); Missouri Public Service Commission at 12 (proposing that low-income recipients be identified according to "an existing support mechanism so as to avoid creating cumbersome and expensive infrastructure").